

#### **Operative Report**

**Date of Operation:** 8-7-13 **Patient's Name:** Paul Aiken

Surgeon: Doug Schottenstein, MD

Preoperative Diagnosis: Lumbar radiculitis

Postoperative Diagnosis: Same

Anesthesia: Local Anesthesiologist: N/A

Procedure: Epidurography

#### **Assessment:**

The patient presents today with the same complaints as previously noted. The procedure was explained to the patient. Risks, benefits and alternatives were discussed with the patient. All questions have been answered. Informed consent obtained.

#### **Explanation of Medical Necessity:**

Epidurography in conjunction with epidural steroid injections provides for safe and accurate therapeutic injection and is associated with an exceedingly low frequency of untoward sequelae. It can be performed safely on an outpatient basis and does not require sedation or special monitoring. This is performed separate to the primary procedure.

The use of epidural injections for the treatment of back and/or radicular pain was described by Evans in 1930. The procedure has been traditionally performed using a blind technique without fluoroscopic guidance. The blind interlaminar technique introduces the potential for erroneous needle placement and subsequent injection of substances into undesired locations, such as the subarachnoid space. Inaccurate needle placement occurred in 25% to 30% of injections, even in the hands of skilled and experienced proceduralists. The documentation of accurate delivery of therapeutic injectate is crucial with respect to the safety and efficacy of this procedure. The potential complications of intrathecal steroid injections, such as adhesive arachnoiditis, have been well described. In addition, even with negative needle aspiration, a significant number of injections following blind needle placement have been shown to be intravascular.

Because of the high rate of erroneous needles placement associated with blind techniques, there has been movement toward fluoroscopically guided injections and **epidurography** to document accurate needle placement and to evaluate the epidural space before the installation of the therapeutic substances. Injecting variable amounts of radiologic contrast material under direct fluoroscopic observation with filming

**epidurography** before therapeutic injection provides improved safety and efficacy as compared with blind techniques. The risk of unintended intrathecal injection and its consequences can be virtually eliminated.

## Technique:

The patient was placed in a prone position on the fluoroscopy table. The landmarks were identified by palpation and confirmed on fluoroscopy. The patient was prepped and draped in sterile fashion The spinal interspace was identified using AP Fluoroscopy. 3 cc of 1% lidocaine was used to locally anesthetize the skin and subcutaneous tissue overlying the spinal interspace. A 20-gauge Tuohy needle was inserted through the skin wheal into the spinal interspace utilizing fluoroscopy. The epidural space was accessed with the loss of resistance technique. The needle placement in the epidural space was confirmed with PA fluoroscopic views. There was no evidence of CSF or heme.

1.0cc Omnipaque 240 was then injected, with good spread of contrast above and below the injection site, totaling 4 spinal levels.

The needle was removed. The patient tolerated the procedure well, and was discharged home in good condition. Instructions were given to the patient. Follow up will be arranged by the patient.

Doug Schottenstein, MD Board Certified Neurology Board Certified Pain Management

## **Operative Report**

**Date of Operation:** 8-7-13 **Patient's Name:** Paul Aiken

Surgeon: Doug Schottenstein, MD

Preoperative Diagnosis: Lumbar radiculitis

Postoperative Diagnosis: Same

Anesthesia: Local Anesthesiologist: N/A

Procedure: Caudal Epidural Steroid Injection

#### **Assessment:**

The patient presents today with the same complaints as previously noted. The procedure was explained to the patient. Risks, benefits and alternatives were discussed with the patient. All questions have been answered. Informed consent obtained.

# Technique:

The patient was placed in a prone position on the fluoroscopy table. The landmarks were identified by palpation and confirmed on fluoroscopy. The patient was prepped and draped in sterile fashion. Fluoroscopy was used throughout the procedure. The skin overlying the sacral hiatus was infiltrated with 3cc of 1% lidocaine. A 20-gauge Tuohy needle was inserted through the skin wheal and advanced through the sacrococcygeal ligament to enter the epidural space. No heme or CSF on aspiration. No paresthesia. Epidural positioning of the needle was confirmed with AP and lateral fluoroscopic views.

1 cc of Omnipaque dye injected through the Tuohy needle demonstrated cephalad-caudad spread outlining the epidural space. At this point 80 mg of Kenalog diluted with 8 cc of normal saline was injected into the epidural space. The patient tolerated the procedure well, and was discharged home in good condition. Instructions were given to the patient. Follow up will be arranged by the patient.

Doug Schottenstein, MD Pain Management Specialist

NY SPINE MEDICINE
Non Vascular
06-06-2013 09:35 No name

### **Operative Report**

Date of Operation: 6-6-13
Patient's Name: Paul Aiken
Surgeon: Doug Schottenstein,MD

Preoperative Diagnosis: Lumbar Radiculitis

Postoperative Diagnosis: Same

Anesthesia: Local Anesthesiologist: N/A

Procedure: Epidurography

#### **Assessment:**

The patient presents today with the same complaints as previously noted. The procedure was explained to the patient. Risks, benefits and alternatives were discussed with the patient. All questions have been answered. Informed consent obtained.

# **Explanation of Medical Necessity:**

Epidurography in conjunction with epidural steroid injections provides for safe and accurate therapeutic injection and is associated with an exceedingly low frequency of untoward sequelae. It can be performed safely on an outpatient basis and does not require sedation or special monitoring. This is performed separate to the primary procedure.

The use of epidural injections for the treatment of back and/or radicular pain was described by Evans in 1930. The procedure has been traditionally performed using a blind technique without fluoroscopic guidance. The blind interlaminar technique introduces the potential for erroneous needle placement and subsequent injection of substances into undesired locations, such as the subarachnoid space. Inaccurate needle placement occurred in 25% to 30% of injections, even in the hands of skilled and experienced proceduralists. The documentation of accurate delivery of therapeutic injectate is crucial with respect to the safety and efficacy of this procedure. The potential complications of intrathecal steroid injections, such as adhesive arachnoiditis, have been well described. In addition, even with negative needle aspiration, a significant number of injections following blind needle placement have been shown to be intravascular.

Because of the high rate of erroneous needles placement associated with blind techniques, there has been movement toward fluoroscopically guided injections and epidurography to document accurate needle placement and to evaluate the epidural space before the installation of the therapeutic substances. Injecting variable amounts of radiologic contrast material under direct fluoroscopic observation with filming epidurography before therapeutic injection provides improved safety and efficacy as

compared with blind techniques. The risk of unintended intrathecal injection and its consequences can be virtually eliminated.

### Technique:

The patient was placed in a prone position on the fluoroscopy table. The landmarks were identified by palpation and confirmed on fluoroscopy. The patient was prepped and draped in sterile fashion The spinal interspace was identified using AP Fluoroscopy. 3 cc of 1% lidocaine was used to locally anesthetize the skin and subcutaneous tissue overlying the spinal interspace. A 20-gauge Tuohy needle was inserted through the skin wheal into the spinal interspace utilizing fluoroscopy. The epidural space was accessed with the loss of resistance technique. The needle placement in the epidural space was confirmed with PA fluoroscopic views. There was no evidence of CSF or heme.

1.0cc Omnipaque 240 was then injected, with good spread of contrast above and below the injection site, totaling 4 spinal levels.

The needle was removed. The patient tolerated the procedure well, and was discharged home in good condition. Instructions were given to the patient. Follow up will be arranged by the patient.

Doug Schottenstein, MD Board Certified Neurology Board Certified Pain Management

# **Operative Report**

**Date of Operation**: 6-6-13 **Patient's Name:** Paul Aiken

Surgeon: Doug Schottenstein, MD

Preoperative Diagnosis: Lumbar Radiculitis

Postoperative Diagnosis: Same

Anesthesia: Local Anesthesiologist: N/A

**Procedure:** L3 – L4 Epidural Steroid Injection

#### **Assessment:**

The patient presents today with the same complaints as previously noted. The condition remains unchanged, and all questions have been answered. Informed consent was obtained.

### Technique:

The lumbar epidural was done in a prone position with a pillow placed under the abdomen to reduce lumbar lordosis. The patient was prepped and draped in sterile fashion. The L3-L4 interspace was identified using PA and lateral Fluoroscopy. 1% lidocaine was used to infiltrate the skin and subcutaneous tissue overlying the target area. A 20 G tuohy needle was inserted into the L3 – L4 interspace utilizing fluoroscopy and the loss of resistance technique. There was no cerebrospinal fluid or blood on aspiration. There was no pain or paresthesia with injection.

0.5cc Omnipaque 240 was then injected, with good spread of contrast in the epidural space, above and below the injection site.

At this point Kenalog 80 mg diluted with 4cc in normal saline was injected into the epidural space. The patient tolerated the procedure well and was discharged to home in good condition. Instructions were given to the patient. Follow up will be arranged by the patient.

Doug Schottenstein, MD Pain Management Specialist

### **Operative Report**

**Date of Operation:** 3-27-13 **Patient's Name:** Paul Aiken

Surgeon: Doug Schottenstein, MD

Preoperative Diagnosis: Lumbar radiculitis

Postoperative Diagnosis: Same

Anesthesia: Local Anesthesiologist: N/A

Procedure: Epidurography

#### **Assessment:**

The patient presents today with the same complaints as previously noted. The procedure was explained to the patient. Risks, benefits and alternatives were discussed with the patient. All questions have been answered. Informed consent obtained.

#### **Explanation of Medical Necessity:**

Epidurography in conjunction with epidural steroid injections provides for safe and accurate therapeutic injection and is associated with an exceedingly low frequency of untoward sequelae. It can be performed safely on an outpatient basis and does not require sedation or special monitoring. This is performed separate to the primary procedure.

The use of epidural injections for the treatment of back and/or radicular pain was described by Evans in 1930. The procedure has been traditionally performed using a blind technique without fluoroscopic guidance. The blind interlaminar technique introduces the potential for erroneous needle placement and subsequent injection of substances into undesired locations, such as the subarachnoid space. Inaccurate needle placement occurred in 25% to 30% of injections, even in the hands of skilled and experienced proceduralists. The documentation of accurate delivery of therapeutic injectate is crucial with respect to the safety and efficacy of this procedure. The potential complications of intrathecal steroid injections, such as adhesive arachnoiditis, have been well described. In addition, even with negative needle aspiration, a significant number of injections following blind needle placement have been shown to be intravascular.

Because of the high rate of erroneous needles placement associated with blind techniques, there has been movement toward fluoroscopically guided injections and **epidurography** to document accurate needle placement and to evaluate the epidural space before the installation of the therapeutic substances. Injecting variable amounts of radiologic contrast material under direct fluoroscopic observation with filming

**epidurography** before therapeutic injection provides improved safety and efficacy as compared with blind techniques. The risk of unintended intrathecal injection and its consequences can be virtually eliminated.

## Technique:

The patient was placed in a prone position on the fluoroscopy table. The landmarks were identified by palpation and confirmed on fluoroscopy. The patient was prepped and draped in sterile fashion The spinal interspace was identified using AP Fluoroscopy. 3 cc of 1% lidocaine was used to locally anesthetize the skin and subcutaneous tissue overlying the spinal interspace. A 20-gauge Tuohy needle was inserted through the skin wheal into the spinal interspace utilizing fluoroscopy. The epidural space was accessed with the loss of resistance technique. The needle placement in the epidural space was confirmed with PA fluoroscopic views. There was no evidence of CSF or heme.

1.0cc Omnipaque 240 was then injected, with good spread of contrast above and below the injection site, totaling 4 spinal levels.

The needle was removed. The patient tolerated the procedure well, and was discharged home in good condition. Instructions were given to the patient. Follow up will be arranged by the patient.

Doug Schottenstein, MD Board Certified Neurology Board Certified Pain Management

### **Operative Report**

**Date of Operation:** 3-27-13 **Patient's Name:** Paul Aiken

Surgeon: Doug Schottenstein, MD

Preoperative Diagnosis: Lumbar radiculitis

Postoperative Diagnosis: Same

Anesthesia: Local Anesthesiologist: N/A

**Procedure:** Caudal Epidural Steroid Injection

#### **Assessment:**

The patient presents today with the same complaints as previously noted. The procedure was explained to the patient. Risks, benefits and alternatives were discussed with the patient. All questions have been answered. Informed consent obtained.

## Technique:

The patient was placed in a prone position on the fluoroscopy table. The landmarks were identified by palpation and confirmed on fluoroscopy. The patient was prepped and draped in sterile fashion. Fluoroscopy was used throughout the procedure. The skin overlying the sacral hiatus was infiltrated with 3cc of 1% lidocaine. A 20-gauge Tuohy needle was inserted through the skin wheal and advanced through the sacrococcygeal ligament to enter the epidural space. No heme or CSF on aspiration. No paresthesia. Epidural positioning of the needle was confirmed with AP and lateral fluoroscopic views. 1 cc of Omnipaque dye injected through the Tuohy needle demonstrated cephalad-caudad spread outlining the epidural space. At this point 80 mg of Kenalog diluted with 8 cc of normal saline was injected into the epidural space. The patient tolerated the procedure well, and was discharged home in good condition. Instructions were given to the patient. Follow up will be arranged by the patient.

Doug Schottenstein, MD Pain Management Specialist